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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/627,448      | 07/27/2000  | Toshihiko Ouchi      | 35.G2625            | 1095             |

5514 7590 02/26/2002

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EXAMINER

KIM, ELLEN E

ART UNIT PAPER NUMBER

2874

DATE MAILED: 02/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/627,448

Applicant(s)

OUCHI, TOSHIHIKO

Examiner

Ellen E. Kim

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.


**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: 

**1. DETAILED ACTION**

**2. Claim Rejections - 35 USC § 102**

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

a. A person shall be entitled to a patent unless –

b. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1- 7, 9-13, and 16-27 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gilliland et al [USPAT 5,774,614].

c. Gilliland et al disclose an optical wiring device comprising:

i. an electric connecting portion 28, 32 [column 4, lines 27-28];

ii. optical transmission means 46 [optical fiber];

iii. an optical device 20 for conducting an optoelectric conversion, wherein the optical device including at least one of a surface light emitting device, and a surface light receiving device [column 3, lines 14-16].

d. In re claims 6 and 7, Gilliland et al teach at column 3, lines 1-9 that VCSEL and PIN diode can be utilized.

e. In re claim 9, Gilliland et al teach at column 3, lines 26-31 that the conducting members provide flip-chip technology.

f. In re claims 9 and 10, Fig. 1 and 2 show a wiring substrate 30 having windows.

g. In re claim 11, a plate 124 is shown in Fig. 3.

- h. In re claim 12, Gilliland et al teach at column 4, line 24 a flexible substrate 30.
- i. In re claims 16 and 17, Gilliland et al show a mirror layers 21 with an active layer in Fig. 1.
- j. In re claim 20, a metal thin film 30 is shown in Fig. 1.
- k. In re claims 23 and 24, a CMOS is shown at column 6, line 15.
- l. In re claims 25-27, Gilliland et al teach at column 6, lines 24-26 that a computer server is utilized, therefore, it is clear that the display with an input/output port and a network are inherently shown.

#### **5. Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilliland et al.

- iv. In re claim 8, Gilliland et al disclose every aspect of claimed invention except for the metal-semiconductor-metal photodiode. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gilliland et al's device to include the metal-

semiconductor-metal photodiode, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

v. In re claim 14, Gilliland et al disclose every aspect of claimed invention except for the electronic circuit device having a parallel-to-serial converting function. Gilliland et al, however, teach at column 6, lines 9-34 that the flexible substrate can perform multiple functions. Therefore, It would have been obvious to the one skilled in the art at the time the invention was made to modify Gilliland et al's device to include the electronic circuit device having a parallel-to-serial converting function for the purpose of higher coupling efficiency of the attachment of the optoelectronic device.

vi. In re claim 15, Gilliland et al disclose every aspect of claimed invention except for the Si substrate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gilliland et al's device to include the Si substrate, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

**8. Conclusion**

9. In conclusion, the above-identified differences between the subject matter sought to be patented and the U.S. Patent to Gilliland et al are such that the subject matter, considered as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

11. The prior art submitted by applicant has been considered and made of record (note the

12. attached copy of form PTO-1449).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen E. Kim whose telephone number is (703)308-4946.

14. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the receptionist whose telephone number is (703)308-0956.

15. Ellen E. Kim

16. Patent Examiner



17. February 21, 2002/EK